WE CLAIM:

1. A method for the solder-stop structuring of 3D contact structures on wafers having a metallization comprising a Cu/Ni layer, comprising the steps of:

coating the metallization layer with an Au layer;

depositing resist in a selected local solder area on the tip of a 3D contact structure;

depositing a solder stop layer over the 3D contact structure, including the resist; and

removing the resist on the tip of the 3D structure, including the solder stop layer covering said resist.

2. The method according to claim 1, wherein the 3D contact structures comprise compliant contact bumps which are connected electrically via a metallization layer to a bonding pad on the wafer.

3. The method according to claim 1, wherein the resist used is an epoxy photoresist.

4. The method according to claim 3, wherein the resist is removed thermally by means of a lift-off step.

5. The method according to claim 1, wherein the resist is removed thermally by means of a lift-off step.

6. The method according to claim 1, wherein the solder stop layer is deposited at least in the region of the 3D structure.

7. The method according to claim 1, wherein the layer structure of the metallization is built up on a seed layer, which also encloses the resilient or compliant element.

8. The method according to claim 1, wherein the solder stop layer consists of a mineral material such as boron nitride.

9. The method according to claim 1, further comprising the steps of:

depositing the Cu/Ni layers of the metallization within a first photoresist mask;

removing the first photoresist mask and the seed layer in the region outside the 3D structure; and

thereafter depositing the solder stop layer.